FORM NO. 22 R 10/0	9 SUBMIT IN	QUADRUPLICATE TO:	ARM 36 ARM 36		Lease Name	: REC	EIVED
MONTA	NA BOARD OF	OIL AND GAS CO		.22.601	Bullion		
		IE, BILLINGS, MOI			Lease Type	(Private/State/Fe	d@ray): 2023
	Applicat	ion for Permit To:			Private		
Drill x	Deepen 📗	Re-enter	Ħ T		Well Numbe	CAS CONSESS	SOARD OF OIL & VATION • BILLINGS
oil 🗵	Gas 🔲	Other					VATION • BILLINGS
Operator: Prin	na Exploration, In	C.			Field Name	_	11
Address: 250 F	Filmore St, Suite 5	600				ichland Reca	serett
City: Denver	Sta	ate: CO	Zip: 80206		Unit Name (i	if applicable):	
Telephone Nur	nber: 30	3-755-5681			N/A		
Surface Location of V	/ell (quarter-quarter and f	ootage measurements):			Objective Fo	ormation(s):	
5NW 1/4NW 1/	4 Sec. 36 T27N R59	9E 250' FNL 860' FW	L		Bakken		
					Township, R	Range, and Section	on:
		on(s) if directional or horizor	ntal well:		T27N R59	9E Section 36	
TD - 26,292' M					County:		
BHL - SW 1/4	SW 1/4 Sec. 13 T26	6N R59E 250' FSL 55	O, LANT		Roosevel	t	
					Elevation (ii	ndicate GL or KB	):
					2196' GL		• •1
Size and descr	iption of drilling/spa	cing unit and applicat	ole order, if any:	F	ormation at to	otal depth:	Anticipated Spud Date:
		MT Order 2021-026			Bakke		5/1/2023
	empory opacing				Banne		0/1/2020
Hole Size	Casing Size	Weight / Foot	Grade (API)		Depth	Sacks of Ceme	nt Type of Cement
13 1/2"	9 5/8"	36#	J-55 LTC		2,200'	623	See Attached
8 3/4"	7"	32#	P110 BTC		10,940'	677	See Attached
6"	4 1/2"	13.5#	P110 BTC	:	26,292'	853	See Attached
	ached programs.	agram of blowout prevei	тег одарнена: пас		d.iiioo or doc	oloo iida piografi	
	BOARD	USE ONLY		T			
Approved (date)	MAR 1 6 202	Permit Fee	\$15000		•	hereby certifies the application is true	
By Rayanie	1 & Dis	Check Numbe		Siç	gned (Agent)	Rrd Da	who were
Title Tech P	logian Coordi	Permit Expires	VAL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tit	tle R	en Gardner - A	gent/Pet Engineer
THIS PERMIT IS SU		PI Number: 25 -	1941	Da	ate	1/24/2023	_
CONDITIONS OF AF STATED ON THE BA	PROVAL	TNumber: 25		Te	elephone Numb	er4	106-259-4878
Samples Required:	NONE	ALLcores to USGS, Core Labo	FROM _	guired s	amples must he	feet to	
Oole GIII	Po to address pelow, Idii		Board of Oil and Gas 2535 St. Johns Aver	Conse		write and a	
			Billings, MT 5910				



## SUPPLEMENTAL INFORMATION

JAN 2 5 2023

Note: Additional information or attachments may be required by Rule or by special request.

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

- Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.
- 2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.
- 3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.
- 4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.
- 5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)
- 6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:

X	No additional permits needed
	310 Permit (apply through county conservation district)
	Air quality permit (apply through Montana Department of Environmental Quality)
	Water discharge permit (apply through Montana Department of Environmental Quality)
	Water use permit (apply through Montana Department of Natural Resources and Conservation)
	Solid waste disposal permit (apply through Montana Department of Environmental Quality)
	State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
	Federal drilling permit (specify agency)
	Other federal, state, county, or local permit or authorization: (specify type)

## NOTICES:

- 1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.
- 2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

## **BOARD USE ONLY**

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Any Changes to Approved Frac plan in APD needs to be submitted via Sundry Notice to MBOGC prior to stimulation of the well.

WARNING: Failure to comply with conditions of approval may void this permit.





	Mangho	Athin Owner	Specific Granish	(falditive)
	DARKER	16414,912	1,015	Water
	22,820,000	22,816,000	2.65	Sand (Proppunt)
	37,310	4,101	1.09	DioSinte GQ123x
	4,501	4,561	1.98	CalBreak 1st 3600
	120	13	1.11	CalGoard 04 9100
	62.61%	8,297	891	CalSurf** 9401
	1,000	1,000	1.25	CatVers <sup>14</sup> P-10
	1.00	1,000	125	CalVert** P-P
	7,000	1,990	1.25	CalVentin P-S
	235,701	26,854	1.05	CalVinc 10 6621
	21,778	2,462	1.06	DynaScale <sup>111</sup> 3515
	22,420	2,500	1.07	Hydrochlonic Acid
3		-		
HIT				
3	Total Storry Mass (Chr.			

Sand (Proposat)	Operator and CWS	Base Pinds and Mrs. Water Propoping Agen Breake Breaker Corrosion Inhibitor Surfatuar Discring Agent Discring Agent Discring Agent Discring Agent Discring Agent Corrison Colored Corrosion Colored Co	Waler  AFA1 daucily I being Lamnooium chloride	7772-18-5 Listed Richae	(% by max)** 100,00%	136,982,441	(% bymat)** 855(195%	
	CWS	Biscisle Biscake Corrosion Inhibitor Surfastani Diverting Agent Diverting Agent Diverting Agent Pixtens Report Friston Reducer Scale Inhibitor	Añal dimedo i beixel annonium chloride	Linted Below	199,000.19	100,701,707	5,217,3	
### 6621 C C C C C C C C C C C C C C C C C C C	CWS CWS CWS CWS CWS CWS CWS CWS CWS	Breaker Carrosion Inhibitor Surfactant Diverting Agent Friction Reducer Scale Inhibitor	AF&1 dimethy I being I ammonium chloride	Listed Below	74			
#Gmard*** 9100 CC #Surf*** 9401 CC #Surf	CWS CWS CWS CWS CWS CWS CWS	Carrosion Inhibitar Surfactant Diverting Agent Diverting Agent Diverting Agent Diverting Agent Friction Reducer Scale Inhibitor	AKs I daniethy I beine I annnonium chloride	Listed Below				
alSurf1*9 9401 C alVen1** P-10 C alVen1** P-F C alVen1** P-S C alVen1** P-S C alVen1** F-S C alVen1** F-S C	CWS CWS CWS CWS CWS CWS	Surfactant Diverting Agent Diverting Agent Diverting Agent Diverting Agent Friction Reducer Scale Infaltition	AF&1 dimethy I being I ammonium chloride	Listed Before				
of Vent in P-10 C of Vent in P-F C of Vent in P-S C of Vine in 6621 C on a Scale in 3515 C	CWS CWS CWS CWS CWS	Surfactant Diverting Agent Diverting Agent Diverting Agent Diverting Agent Friction Reducer Scale Infaltition	AKs I daniethy I beine I ammonium chloride	Listed Below				
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ynaScale <sup>14</sup> 3515 C	CWS	Scale Infabitor	ARal dimethyl benest ammonium chloride	Listed Below				
			ARyl daniethyl beneyl annoonium chloride					
C COCCOOTS. PLESS	, ws	Chan Perforations	ARa I dimethy I benes I ammonium chloride	Linux Belon			DE LA CONTRACTOR	
			ARa I dimethy I benes I ammonium chloride					
				68424-83-1	3.00%	1,120	0,00029%	
			Animonium Persulfine	7727-54-0	100.00%	4,361	8.00283%	
			Apatite	64476-38-6	0.10%		8.80283%	
			Biotine	1302-27-8	0.10%	22,816	6.01424%	
			Cinnama3dchy de	104-53-2		22,816	0.0142474	
			Crystalline silica (Quartz)	14808-60-7	10.00%	12	H260027%	
			Production of the Country		100,00%	22,816,000	14.243.55%	
			Diethylene glycal, meanmethyl other	34590-94-8	20.00%	24	E 0900215	
		P. W. MWARM	Ethoxytated Alcohols	68131-39-5	10.00%	12	A code(**	
		CalSurf* 9401	Ethosylated Alcohols, C10-16	Proprietary	Proprietary:	18,726	41dHarta	
			Ethylene Glycol	107-21-1	40.00%	48	8 00001% 8 00001%	
			Formie scid	64-18-6	10.00%	12	4.000018	
			Glotaraldehy de	F11-30-8	12.00%	4,480	0.00007	
		CalVise <sup>14</sup> 6621	Ghool	Proprietars			0.002.00%	
			Goothite	1310-14-1	Propriesary	0	A GOVERN	
			Hydrochloric soid	7647-01-0	0.10%	22,816	0.01424%	
			Illiac		37.00%	8,796	0.0031876	
				12173-60-3	1.00%	228,160	0.14245%	
			Umenité	98072-94-7	0.1016	22,816	601/24%	
			(sopropy) alcohol	67-63-0	5.00%	- 6	0.000de**	
			Methanol	67-56-1	60.00%	43,985	692796%	
		DynaScale <sup>14</sup> 3515	Organic Acid Salt	Proprietary	Proprietary	0	B.0000074	
		CalVine14 6621	Organic Acid Salt	Proprietary	Proprietary	0	B14464	
		CalVisc1=6621	Petroleum Dimillates	Proprietary	Proprietary	0	0.000m	
			Poly factide resis	9051-89-2	100,00%		0.000004.5	
		CatVisc** 6621	Proprietars Amide	Proprietary		3,600	0.001877+	
		ColVinc1 <sup>16</sup> 6621	Proprietary Surfaction	Proprietars	Proprietary	0	0.0000074	
		101-110		Progrictary	Proprietury	0	4.00007%	
		CatVinctiv 6621	Tar bases, quinafone derivs, benuy I chloride-quarenteed	72480-30-7	10,00%	12	0.0000776	
		Carvite - 18021	Uera derivative	Proprietary	Proprietary	0	6.000000	
							CONTRACTOR OF THE PARTY OF THE	
							ALC: NO PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	
							NAME OF TAXABLE PARTY.	

\*Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%
fisced was obtained from the